

CLAIMS:

1. A component-holding-tape connecting apparatus for connecting trailing and leading end portions of respective two component holding tapes through a metallic connecting member having a plurality of caulking claws, by caulking the trailing and leading end portions of the respective two component holding tapes and the metallic connecting member, with the metallic connecting member being held in close contact with the trailing and leading end portions, and with each of the trailing and leading end portions being pierced by at least one of the plurality of caulking claws of the metallic connecting member, said component-holding-tape connecting apparatus comprising:

a supplying device holding a plurality of metallic connecting members each provided by the metallic connecting member, and supplying the plurality of metallic connecting members one by one to a caulking position;

a holding device positioning and holding, in said caulking position, the trailing and leading end portions of the respective two component holding tapes and the metallic connecting member which is supplied by said supplying device; and

a caulking device causing the at least one of the plurality of caulking claws of the metallic connecting member held by said holding device, to pierce through each of the trailing and leading end portions of the respective two component holding tapes, and caulking the at least one of the plurality of caulking claws of the metallic connecting member.

2. The component-holding-tape connecting apparatus according to claim 1, wherein said supplying device includes a rotary body positioning the plurality of metallic connecting members one by one in a predetermined position, by being rotated about a rotary axis thereof by a predetermined angle.

3. The component-holding-tape connecting apparatus according to claim 2, wherein said caulking device is operated by operation of an operating lever, said component-holding-tape connecting apparatus comprising a motion converting device converting a pivot motion of said

operating lever into a rotary motion of said rotary body.

4. The component-holding-tape connecting apparatus according to claim 2 or 3, wherein said rotary body has a plurality of metallic-connecting-member holding portions in an outer circumferential surface thereof, and holds the metallic connecting members in the respective metallic-connecting-member holding portions.

5. The component-holding-tape connecting apparatus according to claim 4, further comprising a rotary-body holding portion rotatably and detachably holding said rotary body.

6. The component-holding-tape connecting apparatus according to claim 5, wherein each of at least one of said rotary body and said rotary-body holding portion has a magnet, and wherein said rotary body is attracted by said rotary-body holding portion owing to a magnetic force of said magnet, so as to be held by said rotary-body holding portion.

7. The component-holding-tape connecting apparatus according to claim 6, wherein said rotary body and said rotary-body holding portion have respective magnets each provided by said magnet, and wherein the magnets provided in one of the rotary body and the rotary-body holding portion are disposed to be spaced apart from each other by an angular pitch equal to an angle of one rotational motion of the rotary body, for thereby positioning the rotary body in an angular position in which each of the magnets provided in the one of the rotary body and the rotary-body holding portion is just opposed to the magnet provided in the other of the rotary body and the rotary-body holding portion.

8. The component-holding-tape connecting apparatus according to claim 2 or 3, wherein the plurality of metallic connecting members are equally spaced apart from each other and are held by a holding member which has an elongated shape and which has engaged portions equally spaced apart from each other in a longitudinal direction of said holding member, and wherein said rotary body has, in an outer circumferential surface, engaging portions which are equi-angularly spaced

apart from each other and which are to be held in engagement with the respective engaged portions.

9. The component-holding-tape connecting apparatus according to claim 8, wherein the holding member is formed integrally with the metallic connecting members to which the holding member is partially connected, through an operation in which a metal strip is punched, said component-holding-tape connecting apparatus comprising a cutting-off device cutting each of the metallic connecting members off from the holding member while said each of the metallic connecting members is being positioned in said predetermined position.

10. The component-holding-tape connecting apparatus according to claim 9, further comprising a moving device holding the metallic connecting member cut off by said cutting-off device and moving the metallic connecting member to said caulking position, said moving device cooperating with said rotary body to constitute said supplying device.

11. The component-holding-tape connecting apparatus according to claim 10, wherein said moving device includes a second rotary body which is other than said rotary body as a first rotary body, and wherein said second rotary body has a plurality of metallic-connecting-member holding portions, and is rotatable about a second rotary axis thereof which is other than said rotary axis as a first rotary axis.

12. The component-holding-tape connecting apparatus according to claim 11, wherein said plurality of metallic-connecting-member holding portions have respective magnets, and hold the metallic connecting members which are attracted owing to a magnetic force of each of said magnets.

13. The component-holding-tape connecting apparatus according to claim 11 or 12, wherein said cutting-off device has cutting blades each of which is provided in a corresponding one of said plurality of metallic-connecting-member holding portions.

14. The component-holding-tape connecting apparatus according to any of claims 11-13, wherein each of said plurality of metallic-connecting-member holding portions constitutes a caulking tool for caulking the at least one of the plurality of caulking claws.

15. The component-holding-tape connecting apparatus according to any of claims 11-14, wherein said caulking device is operated by operation of an operating lever, said component-holding-tape connecting apparatus comprising a second motion converting device converting a pivot motion of said operating lever into a rotary motion of said second rotary body.

16. The component-holding-tape connecting apparatus according to any of claims 8-15, wherein said caulking device is operated by operation of an operating lever, said component-holding-tape connecting apparatus comprising a first guide portion that is to guide a portion of the holding member from which the plurality of metallic connecting members are not yet separated, toward said rotary body,

wherein said first guide portion constitutes a second operating lever which cooperates with said operating lever as a first operating lever to operate said caulking device.

17. The component-holding-tape connecting apparatus according to any of claims 8-16, wherein said caulking device is operated by operation of an operating lever, said component-holding-tape connecting apparatus comprising a second guide portion that is to guide a portion of the holding member from which the plurality of metallic connecting members have been separated, from a vicinity of said rotary body toward a position distant from said rotary body, wherein said second guide portion constitutes a second operating lever which cooperates with said operating lever as a first operating lever to operate said caulking device.

18. A strip body providing a plurality of metallic connecting members which are equally spaced apart from each other and which are held by a holding member having an elongated shape, each of said connecting members having a main body portion and a plurality of caulking

claws provided to project from said main body portion, each of said connecting members serving to connect trailing and leading end portions of respective two component holding tapes therethrough, with said each of said metallic connecting members being held in close contact with the trailing and leading end portions, and with at least one of said plurality of caulking claws being caused to pierce through each of the trailing and leading end portions and to be caulked.